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10/635,707

08/05/2003

W. Jean Dodds

58034-011800

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33717

7590

07/31/2007

GREENBERG TRAURIG LLP (LA)

2450 COLORADO AVENUE, SUITE 400E

INTELLECTUAL PROPERTY DEPARTMENT

SANTA MONICA, CA 90404

EXAMINER

WHALEY, PABLO S

ART UNIT

PAPER NUMBER

1631

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/635,707

Applicant(s)

DODDS, W. JEAN

Examiner

Pablo Whaley

Art Unit

1631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 3-5, 8-10, 12, 14, 17-18, 25, and 40-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 8-10, 12, 14, 17, 18, 25 and 40-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *REQUEST FOR CONTINUED EXAMINATION*

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/06/2007 has been entered.

### *STATUS OF THE CLAIMS*

Claims 2, 6-7, 11, 13, 15-16, 19-24, and 26-39 are cancelled. Claims 40-45 are newly added. Claims 1, 3-5, 8-10, 12, 14, 17-18, 25, and 40-45 are under examination. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied, as necessitated by amendment. They constitute the complete set presently being applied to the instant application.

### *PRIORITY*

If applicant desires to claim the benefit of a prior-filed application under 35 U.S.C. 119, a specific reference to the prior-filed application in compliance with 37 CFR 1.78(a) must be included in the first sentence(s) of the specification following the title or in an application data sheet. It is also noted that applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119(e), as follows: The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The

Art Unit: 1631

disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994). The disclosures of the prior-filed US applications 09/419,192, filed 10/15/1999, and 09/432,851, filed 11/02/1999, fail to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application (i.e. claim 1 directed to a "second" computer program). Priority is therefore only granted to provisional application 60/403,203, filed 8/12/2002.

#### **CLAIM REJECTIONS - 35 USC § 112, 2<sup>nd</sup> Paragraph**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-5, 8-10, 12, 14, 17-18, 25, and 40-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims that depend directly or indirectly from claims 1, 10, and 25 are also rejected due to said dependence.

Claims 1, 10, and 25 recite "obtaining data relating to the...of the animal,..., and the data submitted to a clinical pathologist." (lines 4-6). It is unclear whether this is a limitation of data or an active method step. Clarification is requested. Applicant is encourage to amend the claim to recite a step of "submitting the data...to a clinical pathologist."

Claims 1 (lines 10-12) and 10 recite "reporting...through a network, to a clinical pathologist..., and thereby making a diagnosis." Clarification of the method step is requested via

Art Unit: 1631

clearer claim language. Applicant is encouraged to amend lines 17-19 to recite "reporting the analysis to the satellite facility through a network and to a clinical pathologist associated with the satellite facility wherein the clinical pathologist has the data relating to the physical characteristic, thereby making a preliminary diagnosis of the animal health."

Claims 1, 5, 10, 14, and 25 recite limitations directed to the intended use of icons. For example, claim 1 (lines 19-21) recites "icons may be used by the clinical pathologist..., including having the icons being for animal characteristics..., and wherein the icons are for groupings...". A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. Claim 1 provides for the use of icons, but does not set forth any active steps involved in the method/process. Therefore it is unclear what method/process applicant is intending to encompass. Clarification is requested via clearer claim language.

Claims 8 and 17 recite "the states being selectively." Due to the use of passive language, it is unclear whether applicant intends for the usage of "being" to be an active method step or a limitation. Clarification is requested via clearer claim language. Applicant is encouraged to use active language where active method steps are intended (e.g. selecting disease states).

Claims 40-42 and 44-45 recite "wherein the groupings are for all of adult, puppy-adolescent, ....". It is unclear whether said "groupings" is intended to be an active method step, intended use, or a limitation of icons, as recited in parent claims 1, 10, and 25 (e.g. icons containing the group of adult, puppy, etc.). It is also unclear whether "all" is intended to refer only to the "adult" category, or all of the other categories of grouping. Clarification is requested via clearer claim language.

**NEW MATTER**

Claims 40-45 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. This is a NEW MATTER rejection.

Claims 40-45 are newly added and recite limitation directed to groupings for "all of adult, puppy-adolescent, geriatric, large breed dog, and sight hound." In the response filed 06/06/2007, applicant does not point to support for the newly recited limitations in general or specifically for "sight hound." The Examiner has not found support for these limitations in the specification, and these limitations are not present within the scope of the original claims as filed. As the newly recited limitations are not supported by the originally filed claims or disclosure, the claims are rejected for reciting new matter.

**PRIOR ART REJECTION OF INDEFINITE CLAIMS**

In view of the indefiniteness and lack of clarity in the instant claims, as set forth in the 35 USC 112 2<sup>nd</sup> rejections above, the Examiner has had difficulty in properly interpreting instant claims, especially claims 1, 5, 10, 14, and 25 which have been amended and now recite "icons may be used by the clinical pathologist..., including having the icons being for animal characteristics..., and wherein the icons are for groupings....". Claims 40-45 are newly added and recite "groupings are for...". As these limitations are directed to intended uses for said icons, prior art is not required to specifically teach these limitations. However, to avoid piecemeal prosecution and to give applicant a better appreciation for relevant prior art if the claims are redrafted to

Art Unit: 1631

avoid the 35 USC 112 2<sup>nd</sup> rejections, the Examiner has broadly interpreted the claims for purposes of applying the following prior art rejections.

### **Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

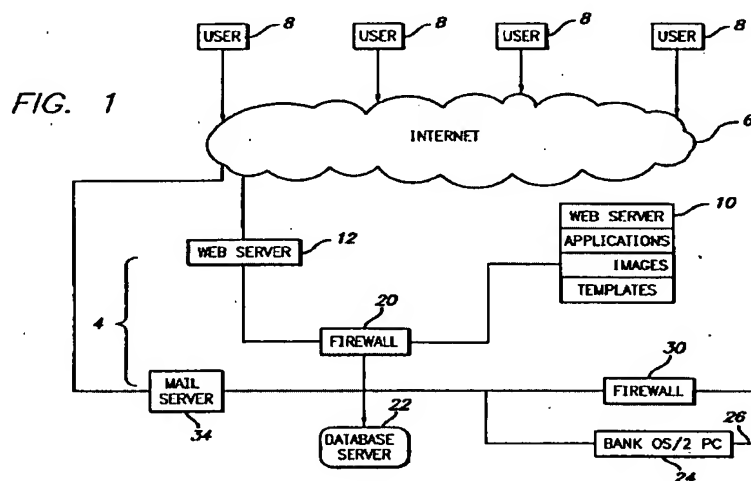
Claims 1-18 and 25 were rejected under 35 U.S.C. 103(a) as being made obvious by Barnhill et al. (US Pat. 6,248,063; Filed Dec. 22, 1997), in view of Mayaud et al. (US Pat. 5,845,255; Issued: Dec. 1, 1998) and Jensen et al. (J. Comp. Path., 1996, Vol. 114, p.339-346), as set forth in the Office action mailed 05/16/2007.

Applicant's arguments, filed 06/06/2007, are persuasive in view of the amendment(s) to instant claims 1, 10, and 25. This rejection is hereby withdrawn.

Claims 1, 3-5, 8-10, 12, 14, 17-18, 25, and 43 are rejected under 35 U.S.C. 103(a) as being made obvious by Dodds (US 6,287,254; Issued: Sept. 11, 2001), in view of Trendelenburg et al. (Clinica Chimica Acta, 1998, Vol. 278, p. 229-242).

Art Unit: 1631

Dodds teaches a veterinary diagnostic method, system and apparatus of health profiling of an animal subject [Abstract]. Dodds teaches obtaining data relating to a plurality of animal characteristics including breed, age, and blood type [Col. 11], wherein owners obtain these data by obtaining and submitting blood samples of their animals to a veterinarian (i.e. clinical pathologist) or veterinary clinic, or to a laboratory for analysis of the biological, physiological, or pathological condition [Col. 2, ¶ 2], as in claims 1, 10, and 25. Genetic data related to thyroid disease and the phenotype health assessment data is combined to determine a relationship between the genetic data and the phenotype health assessment data using a computer program [Ref. Claim 1], as in claims 1, 10, and 25. The phenotypic and genotypic information together with other database information can be presented to a user on a computer screen or other viewing means [Col. 21, ¶ 2] and [Fig. 6], which is a teaching for a computer generated report as in claims 1, 10, and 25. Communication of data occurs through a network to include remotely located clients [Fig. 1] in electronic or fax format [Col. 2, ¶ 2], as in claims 1, 3, 10, 12, and 25.



Dodds also teaches phenotype and genotype databases wherein data is divided into particular groupings [Col. 21, ¶ 3 and 4], a genetic marker database [Col. 21, ¶ 6], and an algorithm that relates coefficients and predictability data (i.e. criteria) from the above data to determine an



Art Unit: 1631

output [Col. 22, ¶ 3], and relating results from the phenotypic database to genotypic and combined database categories (i.e. breed, age, sex, etc.) for making a diagnosis of health [Col. 23, ¶ 3], as in claim 25.

Dodds does not specifically teach obtaining a supplemental or enhanced report or a second computer program comprising menus and icons, as in instant claims 1, 3-5, 8-10, 12, 14, 17-18, 25, and 43. However, Dodds et al. teach an alternate embodiment wherein data interpretation is performed by an algorithm and outputted to user via an expert interface [Col. 21, ¶4], which suggests additional reports generated using a second program and GUIs.

Trendelenburg et al. teach a knowledge-based system (Pro M.D.) that enables medical experts to integrate their knowledge and experience with laboratory information systems to generate integrative explanatory reports [Abstract] and [Fig. 1], as set forth above. More specifically, Trendelenburg et al. teach the following aspects of the instantly claimed invention: A supplemental lab report generated by a Pro M.D. system comprising parameters and icons for thyroid disease, antibodies, disease states, treatments, and levels of immunity to disease (e.g. leukocytes) [Fig. 2 and 4], as in claims 1, 8-10, 17, 18, 25, and 43. A user-interface of a Pro M.D. system (i.e. second computer program) that enables the transfer of laboratory analytical data and permits in-window supplementation of laboratory data from expert input resulting in an enhanced report, as in claims 1, 3, 10, 12, and 25. Furthermore, said interface comprises standard Microsoft Access toolbars which include text editors, menus, and icons related to disease states [Fig. 4], as in claims 1, 4, 5, 8, 9, 10, 12, 14, 17, 18, and 25. Central laboratories for collection and analysis of all fields of data from microbiology to blood bank [Section 7.4] and lymphocyte data sets [Table 1], both of which are teachings for blood sample analysis, as in claims 1, 10, and 25. Modification of reports by experienced laboratory physicians (i.e. enhanced reports) [p.240]. The Pro M.D. software is written in JAVA [Section 5, ¶3], allowing

Art Unit: 1631

easy extension to Internet operations. Due to the indefiniteness of claims 1, 5, 6, 10, 14, and 25, limitations directed to the intended use of said icons are not functional aspects of the instant method and therefore have not been given patentable weight over the teachings of Trendelenburg et al.

|   |             |                                     |
|---|-------------|-------------------------------------|
| <b>Institute for Laboratory Medicine<br/>Hospital</b>   |             | <b>Tel. 3106-2952<br/>19.6.1998</b> |
| <b>To care unit 1A<br/>in the house</b>   |             |                                     |
| <hr/>   |             |                                     |
| <b>thyroid hormones</b>   |             |                                     |
| <b>Regina Sample, date of birth May 4<sup>th</sup>, 1971</b>  |             | <b>sample date</b>                  |
| 3.8.1997  |             |                                     |
| <b>I21/3105</b>   |             | <b>ID:</b>                          |
| <b>clinical indications: suspect for hypothyroidism, estrogen therapy</b>   |             |                                     |
| <b>parameters:</b>  |             |                                     |
| <b>TT3:</b>   | 1,8 ng/ml   | (0,77 - 1,5)                        |
| <b>TT4:</b>   | 11,2 µg /dl | (4,4 - 11)                          |
| <b>FT4:</b>   | 0,75 ng/dl  | (0,75 - 1,54)                       |
| <b>TSH:</b>   | 4,6 µU/ml   | (0,25 - 5)                          |
| <p>26 years old female patient under estrogen therapy with increased resp. slightly elevated quantities of total thyroid gland hormones. This pharmacological effect is caused by liver induction with the estrogen therapy that elevates the quantity of TBC. With this the measured quantity of the total thyroid hormones is increased without elevation of their biologically active fraction. Free T4 falls in the lower, TSH in the upper reference range. These parameters are not influenced by drugs containing estrogens, in contrary to T3 and T4. Your suspicion for hypothyreodism is not confirmed. The findings are compatible with euthyreodism. The possibility of a latent hypothyreodism that could only be detected by a TRH test can not be excluded. (Standardized TRH test: measuring of TSH before and 30 minutes after intravenous injection of 200 - 400 µg TRH [e.g. Antepan or TRH Ferring]).</p> |             |                                     |
| With best regards,  |             |                                     |

Fig. 2. Fictitious example of an interpretation report generated by a Pro.M.D. system.

Art Unit: 1631

Microsoft Access - (dialog)

File Edit View Database Tools Window Help

Microsoft Access - (dialog)

File Edit View Database Tools Window Help

Lymphocyte Subpopulation

imp1\_Fallergebnis

name

date of birth 23.12.69

contributor

sample date 28.12.95

analysis date

Pot.ID H13/20125

Institute(b) ffmh

Leukocytes /u/ 43

Lymphocytes (%) 26

Granulocytes (%) 61

Monocytes (%) 5

T-Cells (CD3 %) 17

B-Cells (CD19 %) 61

Helper Cells (CD4 %) 7

Suppressor Cells (CD8 %) 7

NK Cells (CD16 %) 38

activ. T-Lymphoz. (%) 38

Moderate Leukopenia, pronounced Lymphocytopenia. The number of T-Cells (CD3) is moderately decreased. B-Cells (CD19) reduced. NK-Cells are within the reference range. The number of Helper/Inductor-Cells (CD4) is clearly reduced. The number of Suppressor-/zytotoxic cells (CD8) is normal. The relation of Helper/Suppressor-cells is significantly decreased.

This finding constellation is often seen with immuno deficiency of different origin.

(Prof.Dr....)

text extent(1-3) 1 CD3-Leu11+19+ 4

sec. page ? Leu4-DR+ 19

spec. HIV + (i/n) 1

search select new dialogue result ? End

X OK ✓

Dokumentsatz: 14 | 1 | von 222

Formularansicht

Fig. 4. Current user interface of a Pro.M.D. knowledge-based system: user input form in database Microsoft Access97.

Thus it would have been obvious to someone of ordinary skill in the art at the time of the instant invention to practice the animal health diagnosis system of Dodds et al. using the knowledge-based interpretation program taught by Trendelenburg et al., where the motivation would have been to address the deficiency of current tests which do not provide as much data as possible to attain correct diagnosis and disorder predictions [Dodds et al., Col. 4, ¶15], and because of the growing demand for tools which enable the medical expert to convert his expert knowledge into computable form [Trendelenburg et al., p.230, Section 2], resulting in the practice of the instantly claimed invention. One of ordinary skill in the art would have had a

Art Unit: 1631

reasonable expectation of successfully combining the above teachings as all are directed to computer-based systems for data analysis.

Claims 1, 3-5, 8-10, 12, 14, 17, 18, 25, and 40-45 are rejected under 35 U.S.C. 103(a) as being made obvious by Trendelenburg et al. (Clinica Chimica Acta, 1998, Vol. 278, p. 229-242), in view of Dodds (US 6,287,254; Issued: Sept. 11, 2001) and Jensen et al. (J. Comp. Path., 1996, Vol. 114, p.339-346).

Trendelenburg et al. teach a knowledge-based system (Pro M.D.) that enables medical experts to integrate their knowledge and experience with laboratory information systems to generate integrative explanatory reports [Abstract] and [Fig. 1], as set forth above. More specifically, Trendelenburg et al. teach the following aspects of the instantly claimed invention: A supplemental lab report generated by Pro M.D. (i.e. first program) comprising parameters and icons for thyroid disease, antibodies, disease states, treatments, and levels of immunity to disease (e.g. leukocytes) [Fig. 2 and 4], as in claims 1, 8-10, 17, 18, 25, and 43. A user-interface (i.e. second computer program) that enables the transfer of laboratory analytical data and permits in-window supplementation of laboratory data from expert input resulting in an enhanced report, as in claims 1, 3, 10, 12, and 25. Furthermore, said interface comprises standard Microsoft Access toolbars which includes a text editor, menu, and icons related to disease states, treatments, and levels of immunity to disease (e.g. leukocytes) [Fig. 4], as in claims 1, 4, 5, 8, 9, 10, 12, 14, 17, 18, and 25. Central laboratories for collection and analysis of all fields of data from microbiology to blood bank [Section 7.4] and lymphocyte data sets [Table 1], both of which are teachings for blood sample analysis, as in claims 1, 10, and 25. Modification of reports by experienced laboratory physicians (i.e. enhanced reports) [p.240].

Art Unit: 1631

Due to the indefiniteness of claims 1, 5, 6, 10, 14, and 25, limitations directed to the intended use of said icons are not functional aspects of the instant method and therefore have not been given patentable weight over the teachings of Trendelenburg et al.

Trendelenburg et al. do not teach steps directed to obtaining data relating to physical characteristics of an animal, securing a blood sample from an animal, or icons related to animal characteristics, as in claims 1, 8, 9, 10, 17, 18, 25, 40-42 and 44-45. Trendelenburg et al. also do not teach communication via a network, as in claims 1, 3, 10, 12, and 25, but do teach software written in JAVA [Section 5, ¶3], allowing easy extension to Internet operations.

Dodds teaches a veterinary diagnostic method, system and apparatus of health profiling of an animal subject [Abstract], as set forth above, wherein communication of data occurs through a network to include remotely located clients [Fig. 1] in electronic or fax format [Col. 2, ¶ 2], as in claims 1, 3, 10, 12, and 25.

Jensen et al. teach immunoradiometric assays and commercial test kits for evaluating dogs with thyroid disease [Abstract]. Blood samples are obtained from healthy and diseased dogs [Table 1]. Jensen et al. teach groupings of data sets comprising large and small breeds of dogs, German shepards (which the Examiner has broadly interpreted as sight hounds as they are well-known to be used as seeing eye dogs), clinical descriptions of dogs and disease status, age, sex, and TSH (i.e. thyroid disease) concentration levels [Table 1], which is a teaching for grouping of animal characteristics, as in claims 1, 8, 9, 10, 17, 18, 25, 40-42 and 44-45. It is noted that claims 40-42 and 44-45 are directed to "groupings" and do not specifically recite any functional limitations directed to grouping of "icons." Therefore claims 40-42 and 44-45 have not been given patentable weight over the teachings of Trendelenburg et al. and Jensen et al.

| Table 1<br>Concentration of canine thyrotropin (TSH) in blood samples from 13 clinically healthy dogs,<br>5 dogs with primary hypothyroidism and 11 euthyroid dogs with various dermatological<br>diseases |                             |            |                        |                     |
|--|-----------------------------|------------|------------------------|---------------------|
| <i>Clinical description<br/>of dogs</i>  | <i>Breed</i>                | <i>Sex</i> | <i>Age<br/>(years)</i> | <i>TSH<br/>µg/l</i> |
| <b>Healthy dogs</b>  |                             |            |                        |                     |
|  | Cross breed                 | F          | 6                      | 0.34                |
|  | Golden retriever            | F          | 7                      | 0.24                |
|  | German shepherd             | F          | 3                      | 0.23                |
|  | Dalmatian                   | M          | 5                      | 0.17                |
|  | Golden retriever            | M          | 7                      | 0.14                |
|  | Labrador                    | M          | 8                      | 0.14                |
|  | Beagle                      | F          | 4                      | 0.09                |
|  | Beagle                      | M          | 2                      | 0.09                |
|  | Beagle                      | M          | 6                      | 0.07                |
|  | Beagle                      | M          | 6                      | 0.07                |
|  | Beagle                      | M          | 4                      | 0.07                |
|  | Beagle                      | M          | 4                      | 0.07                |
|  | Beagle                      | M          | 5                      | 0.06                |
| <b>Dogs with primary hypothyroidism</b>  |                             |            |                        |                     |
| Lymphocytic thyroiditis (marked)   | Cross breed                 | F          | 8                      | 0.72                |
| Lymphocytic thyroiditis (mild)   | German shepherd             | M          | 7                      | 0.52                |
| Lymphocytic thyroiditis (mild)   | Flatcoated retriever        | Ovx,       | 6                      | 0.18                |
| Lymphocytic thyroiditis (marked)   | Fox terrier                 | M          | 5                      | 0.17                |
| Lymphocytic thyroiditis (mild)   | Labrador                    | F          | 11                     | 0.16                |
| <b>Euthyroid dogs with various<br/>dermatological diseases</b>   |                             |            |                        |                     |
| Atopic dermatitis  | Cross breed                 | F          | 8                      | 0.53                |
| Atopic dermatitis  | German shepherd             | M          | 3                      | 0.11                |
| Atopic dermatitis  | West Highland white terrier | M          | 6                      | 0.09                |
| Atopic dermatitis  | German shepherd             | M          | 2                      | 0.09                |
| Atopic dermatitis  | German shepherd             | M          | 4                      | 0.08                |
| Idiopathic seborrhoea  | Cross breed                 | Ovx,       | 7                      | 0.12                |
| Idiopathic seborrhoea  | American cocker spaniel     | Castrated  | 3                      | 0.09                |
| Chronic dermatitis complicated<br>with <i>Malassezia pachydermatitis</i>   | Dachshund                   | F          | 7                      | 0.17                |
| Chronic pyoderma   | Pug                         | Ovx,       | 8                      | 0.11                |
| Deep pyoderma  | Bull mastiff                | M          | 1                      | 0.05                |
| Ovarian imbalance type 1<br>("Hyperoestrogenism")  | English bulldog             | F          | 7                      | 0.08                |

Thus it would have been obvious to someone of ordinary skill in the art at the time of the instant invention to practice knowledge-based test result interpretation program taught by Trendelenburg et al., using the animal and disease attributes taught by Jensen et al. as icons, as the system of Trendelenburg et al. enables experts to use their own knowledge and notation [Trendelenburg et al., Section 2, ¶ 3]. One of ordinary skill in the art would have been motivated to combine the above teachings because of the growing demand for tools which enable the medical expert to convert his expert knowledge into computable form [Trendelenburg et al., p.230, Section 2], resulting in the practice of the instantly claimed invention. One of ordinary skill

Art Unit: 1631

in the art would have had a reasonable expectation of successfully combining the above teachings as all are directed to computer-based systems for data analysis.

### CONCLUSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pablo Whaley whose telephone number is (571)272-4425. The examiner can normally be reached on 9:30am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached at 571-272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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